

examiner in connection with the rejection for indefiniteness. Specifically:

1. Claim 75 has been reworded in the manner suggested by the examiner.
2. Claim 76 has been amended by deletion of “in the form of...” which the examiner found to be objectionable.
3. Claims 77 and 82 have been amended by insertion of the language “by volume” as suggested by the examiner.
4. Claim 80 has been amended to positively recite the wrapping.
5. Claim 81 has been amended as suggested by the examiner except for language in the examiner’s claim inconsistent with “a hardened reinforcing material.” In the hardened material obtained by hydration of the flexible material as defined by claim 75, the hydraulic inorganic powder hardens. The hardening reaction and hydration are one and the same. Likewise, if the fiber reinforcing material is defined as “hardened” it cannot “hardens upon contact with water” as recited in the last line of the examiner’s suggested wording for claim 81. Please note that claim 81 as first presented for consideration was a product-by-process claim which simply defined the hardened product as a product obtained by hydrating (process) the flexible hydraulic reinforcing material of claim 1.
6. Claim 88 has been cancelled.
7. Claim 85 has been amended in the manner of the amendments to claim 81 and, additionally, by deletion of the language “in the form of” which the examiner found to be objectionable and substitution therefor of conventional Markush group wording.
8. Claim 86 has been cancelled.

9. Claim 87 has been amended to delete the language “in the form of” which the examiner found to be objectionable.

The rejection for obviousness over Japanese 62-226848 is respectfully traversed. It is believed that the rejection may well be moot in view of the adoption of the examiner’s suggested new language for claim 75 and, with correction, claim 81. At the top of page 7 of the office action the examiner noted that applicants’ product claims are not specific to the hydraulic inorganic powder being dry prior to coating onto the reinforcing fiber.” That statement is no longer true in light of adoption of the examiner’s suggested language for claim 75.

At the top of page 7 of the office action the examiner writes:

In this regard, it is the examiner’s position that the translation teaches coating the reinforcing fibers and drying said coated fibers, which necessarily results in reinforcing fibers having dry inorganic powder adhered thereto.

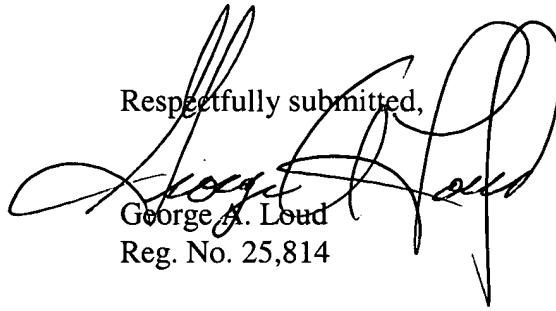
As applicants noted in their last response, the reinforcing coated fibers produced by the reference cannot possibly have unhardened dry hydraulic inorganic powder adhered thereto (claim 75) because the coating materials used by the reference are aqueous in nature. In apparent answer to this argument the examiner writes: “As to the binder being a water-based product, it is noted that the third embodiment is not limited to acrylic emulsions.” While the last quoted statement by the examiner is correct, it does not negate applicants’ argument. Indeed, at page 5, in the second paragraph under the heading “Third Embodiment” the reference teaches that SBR or melamine resin or other such resin may be dissolved in the “cement solution.” Thus, the examiner is correct in that the third embodiment is not limited to an acrylic emulsion. However, regardless of what resin is

dissolved in the "cement solution" the result is invariably an aqueous system because the "cement solution" itself is aqueous. The other embodiments utilize a "cement paste", rather than the "cement solution" of the third embodiment. The "cement paste" is described as "having a small value of water-cement ratio," quoting from the first paragraph in the description of the second embodiment. The third embodiment is believed to have a higher water-cement ratio and therefore is referred to as a "solution", rather than a paste, because in the third embodiment it is intended that "the slurry viscous material soaks into between reinforcing fibers, thereby serving as a sizing agent for the reinforcing fibers."

Regarding claim 85, it can readily be recognized that the structure of the hardened product will vary in accordance with the manner in which it is made. If the reinforcing fiber is coated with an organic binder containing a dry inorganic hydraulic powder, prior to exposure to water, followed by drying to drive off the organic solvent and form a coating, the dry inorganic hydraulic powder will be bound to the fiber solely by means of the resin binder and that structure will not change upon subsequent hydration and hardening of the powder. In contrast, where the fiber is coated, in a single step, with a material containing an organic resin, water and the inorganic hydraulic powder (the reference) the uncoated fiber will be exposed to the wet hydraulic powder in the first instance which will bind thereto and it cannot be said that the inorganic hydraulic powder will become bound to the fiber through the resin as required by claims 81 and 85.

In conclusion, it is respectfully requested that the examiner reconsider the rejections of record with a view toward allowance of the elected claims as amended.

Respectfully submitted,

A large, stylized handwritten signature in black ink, likely belonging to George A. Loud, is written over the text "Respectfully submitted," and "George A. Loud".

George A. Loud

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75. (Amended) A flexible [fiber-compounded] hydraulic reinforcing material comprising:

reinforcing [(A) Reinforcing] fiber having unhardened dry hydraulic inorganic powder adhered thereto;

[(B) Organic binder; and

©) Unhardened and dry hydraulic inorganic powder which functions as a matrix;]

wherein said inorganic powder is adhered [bound] to said reinforcing fiber by an [said] organic binder; and wherein said reinforcing material hardens [is flexible and remains flexible until contact with water, said reinforcing material hardening] upon contact with water.

76. (Amended) A [fiber-compounded] hydraulic reinforcing material as claimed in claim 75 wherein said reinforcing fiber is selected from the group consisting of:

1) [long fibers in the form of] rovings, ropes and braids;

2) short fibers obtained by cutting said rovings, ropes and/or braids [long fibers] into pieces of a specific length; and

3) [webs in the form of] unidirectional sheets, fabrics, nets, unwoven fabrics and mats [sheet, fabric, net, unwoven fabric and mat].

77. (Amended) A [fiber-compounded] hydraulic reinforcing material as claimed in claim 75 wherein the content of said organic binder, as a [volume] percentage of the sum of (A), (B) and ©), is 0.1 - 40% by volume.

78. (Amended) A [fiber-compounded] hydraulic reinforcing material as claimed in claim 75

wherein the reinforcing fiber is carbon fiber or carbonaceous fiber.

79. (Amended) A [fiber-compounded] hydraulic reinforcing material as claimed in claim 75 wherein the particle diameter of said hydraulic inorganic powder is $0.1\ \mu\text{m}$ - $100\ \mu\text{m}$.

80. (Amended) A package comprising [obtained by wrapping a fiber-compounded] hydraulic reinforcing material as claimed in claim 75 and [in] a moisture-proof packaging material wrapped around said hydraulic reinforcing material.

81. (Amended) A hardened reinforcing material [obtained by hydration of a fiber-compounded reinforcing material] comprising:

[(A) Reinforcing] fiber in a hardened hydraulic inorganic matrix;

[(B) Organic binder; and

(C) Unhardened and dry hydraulic inorganic powder which functions as a matrix;]

wherein said hardened hydraulic inorganic matrix [powder] is adhered [bound] to said reinforcing fiber by an [said] organic binder[; and

wherein said reinforcing material is flexible and remains flexible until contact with water, said reinforcing material hardening upon contact with water].

82. (Amended) A [fiber-compounded] hydraulic reinforcing material as claimed in claim 81 wherein the content of said organic binder, as a [volume] percentage of the sum of said fiber, said hydraulic inorganic matrix and said organic binder [(A), (B) and ©)], is 0.1 - 40% by volume.

83. (Amended) A [fiber-compounded hydraulic] reinforcing material as claimed in claim 81 wherein the [reinforcing] fiber is carbon fiber or carbonaceous fiber.

84. (Amended) A [fiber-compounded hydraulic] reinforcing material as claimed in claim 81 wherein said [reinforcing] fiber is selected from the group consisting of strands, rovings, ropes, braids, unidirectional sheets, fabrics, nets, and unwoven fabrics and mats.

85. (Amended) A hardened reinforcing material [obtained by hydration of a flexible fiber-compounded reinforcing material] comprising at least [components] (A) reinforcing fiber, (B) organic binder and ©) a hardened inorganic hydraulic matrix, with (A) and ©) bound together through (B), the hardened [fiber-compounded] reinforcing material being a member selected from the group consisting [in the form] of strands, rovings, ropes, braids, unidirectional sheet, fabric, net, unwoven fabric and [or] mat[, wherein the components are as follows:

(A) Reinforcing fiber;

(B) Organic binder; and

(C) Unhardened and dry hydraulic inorganic powder which functions as a matrix].

87. (Amended) A hardened reinforcing material as claimed in claim 81 wherein the hardened reinforcing material is loose fiber [in the form of loose fibers].

89. (Twice Amended) A method for producing, in the absence of water, a fiber-compounded hydraulic reinforcing material comprising:

(1) dispersing a dry hydraulic inorganic powder in a solution of an organic binder in an organic solvent;

(2) applying the organic binder solution containing the dispersed hydraulic inorganic powder to reinforcing fiber to bind the hydraulic inorganic powder to the surface of the reinforcing fiber and/or to impregnate the reinforcing fiber;

(3) drying the reinforcing fiber having a coating of the hydraulic inorganic powder;

(4) obtaining, as a product, a dry fiber-compounded hydraulic reinforcing material wherein the hydraulic inorganic powder is unhardened and is bound to the reinforcing fiber through the organic binder, said product remaining flexible until contact with water and, upon contact with water, hardening by a hydration reaction.